CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SECURITY INFORMATION

COUNTRY	USSR (Moscow Oblast)	REPORT NO.	
SUBJECT	Instrument for Measuring the Thickness of Paste Used on the Inside of Iconoscope Tubes	DATE DISTR.	29 April 1953
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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

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1. Under the guidance of PETRENKO, a Soviet, a control measuring apparatus was devised for measuring the thickness of the silver paste used on the inside of iconoscope tubes. 25X1X

2.

3. Since this control measuring equipment was to be portable, it was constructed throughout of aluminum, this being the lightest metal available. (See page three)

4. The equipment consisted of:

   a. A galvanometer which was mounted horizontally on the board and connected to the photocell located on the side of the tube.

   b. A photocell tube which was mounted on the left side of

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the device had Russian markings; I don't know where it was manufactured.

c. Directly opposite the photocell was located a 40-watt lamp similar to an auto bulb, operating on 110 volts DC. It was a clear round bulb with a metal reflector located inside. The physical size of the lamp was approximately 30 mm in diameter. I saw this item in a Soviet catalogue which illustrated other bulbs such as kino lamps, auto lamps, and ordinary light bulbs.

5. The iconoscope tube was placed on the four asbestos-wound iron supports. Then the hood or cover was put on this board, making sure that the red velvet cloth, located at the end where the neck of the tube protruded, completely eliminated any light from entering while the test was being conducted. The tube could not be moved when once the hood was placed over it.

6. There were two oval-shaped slots, one on each side, approximately 40 mm wide and 20 mm high. The photocell and bulb could be moved horizontally but not vertically; the width of the slots permitted the width of the silver painted strip to be measured.

7. The 40-watt light bulb was then energized; and, if the light showed through to the other side where the photocell was located, the galvanometer would so indicate. If the coating was too thin, the tube was discarded, and destroyed. I don't know where the discarded or approved tubes were taken. 25X1X

8. [redacted]

9. Two such devices were made so that the tube could be measured first with the photocell on one side and then, by placing the tube in the other box, the reverse could be measured.

10. The coating (or paste) inside the tube was called "silver paste" by the Soviets (also by the Germans in Germany). I don't know the composition but I do know it derived its name from its color.

11. I don't know how many [tubes] were tested per day.

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12. I overheard more [measuring devices] were made but I don't know where they were used.

[redacted]

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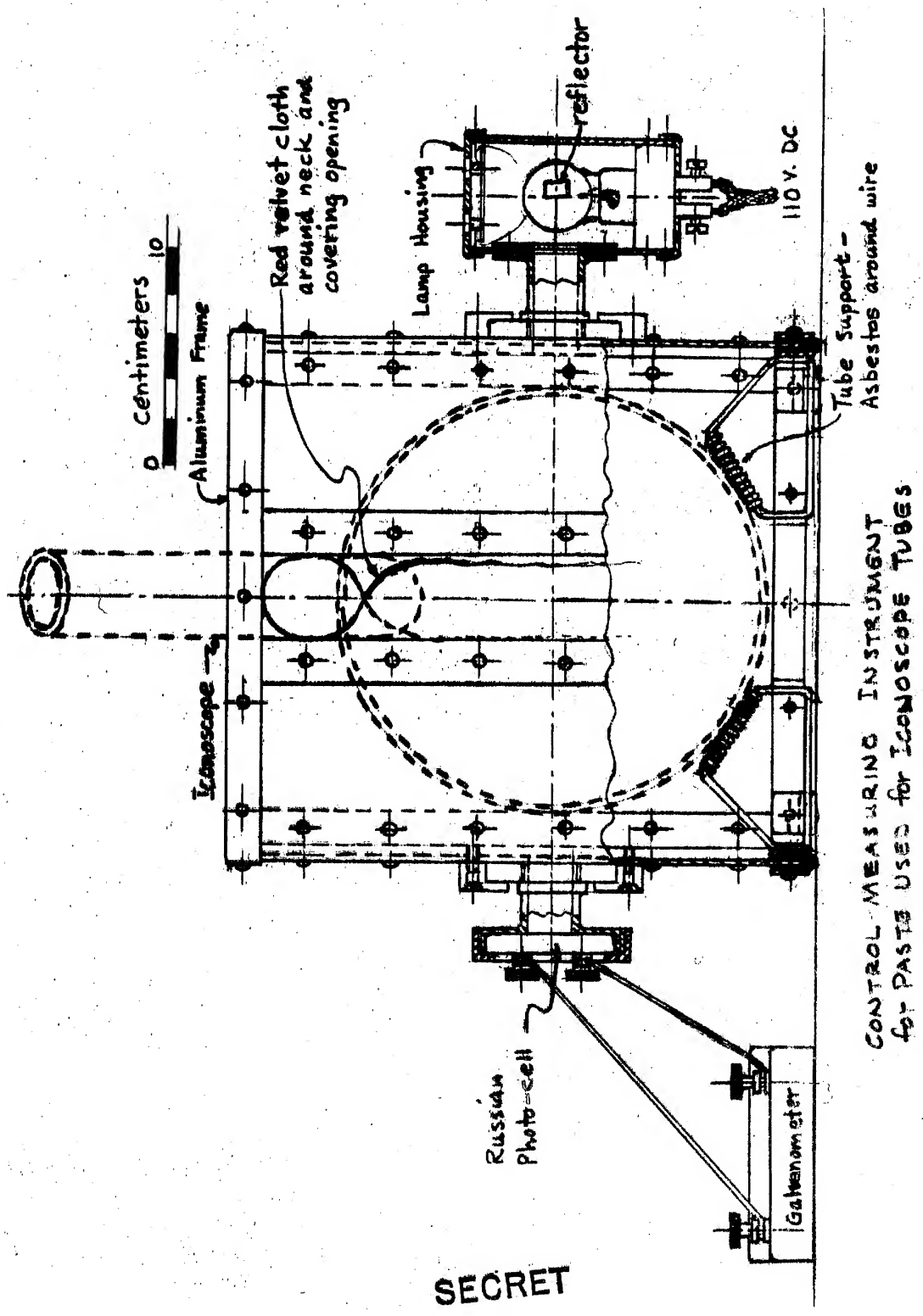

CONTROL MEASURING INSTRUMENT
4- PASTE USED for ICONOSCOPE TUBES

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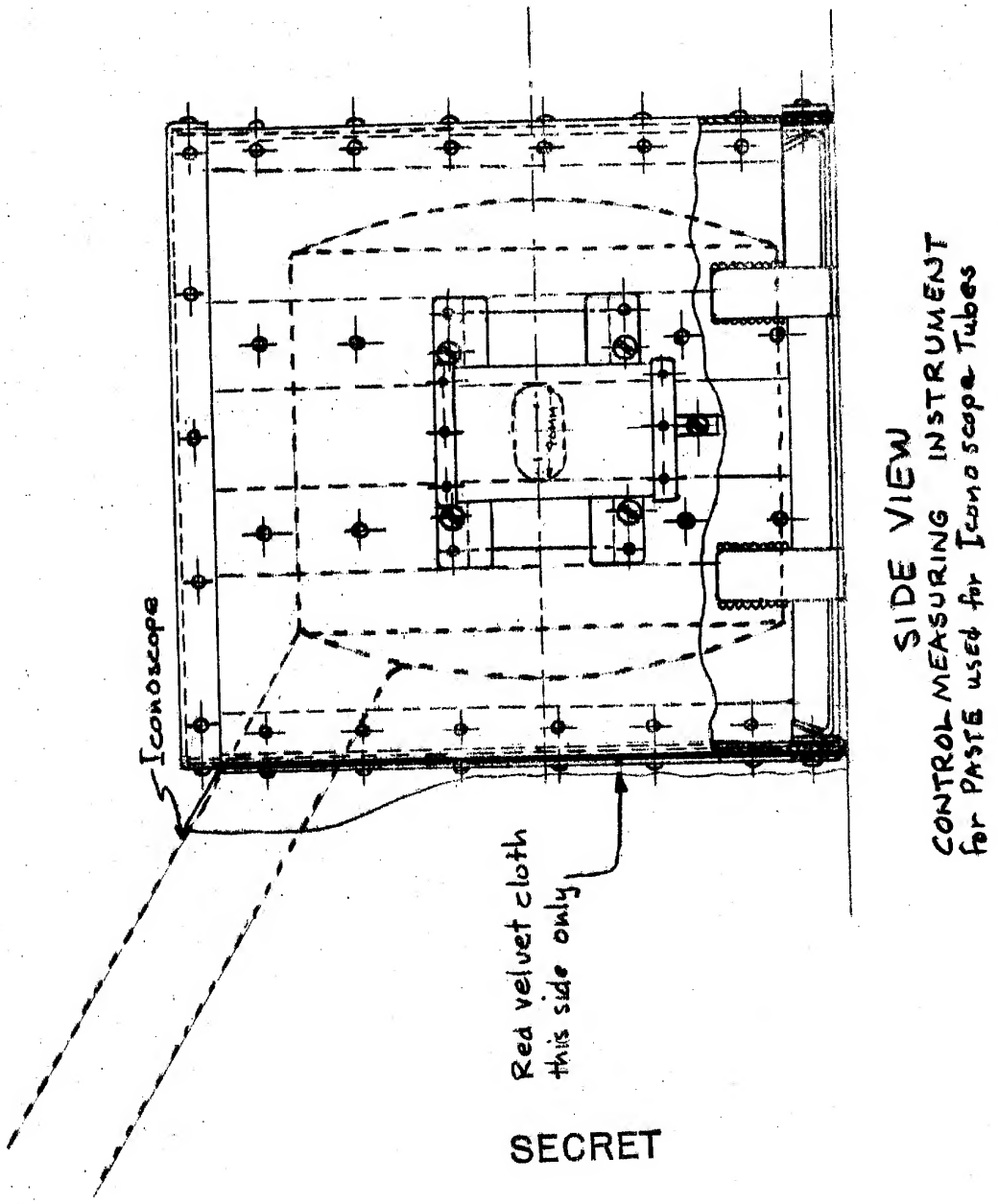

SIDE VIEW
CONTROL MEASURING INSTRUMENT
for PASTE used for Iconoscope Tubes

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